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March 7, 2012

Mr. Jeff Lippert
On-Scene Coordinator
United States Environmental Protection Agency
Region V
9311 Groh Road
Grosse Ile, MI 48318

Subject: **Durable Coatings Site Removal Action**
Northville Township, Wayne County, Michigan
Technical Direction Document No.: S05-0001-1109-002
Document Control No.: 1592-2A-AUQD
Work Order No.: 20405.012.001.1592.00

Dear Mr. Lippert:

The United States Environmental Protection Agency (U.S. EPA) tasked the Superfund Technical Assessment and Response Team (START) contractor, Weston Solutions, Inc. (WESTON®), to provide oversight and technical support for removal action activities at the Durable Coatings Site in Northville Township, Wayne County, Michigan (Site). Specifically, under Technical Direction Document No. S05-0001-1109-002, U.S. EPA requested WESTON START to perform the following:

- Provide written and photographic documentation of Site conditions and activities
- Manage Site files and information
- Provide information needed to prepare U.S. EPA Pollution Reports
- Provide technical support to the U.S. EPA On-Scene Coordinator
- Conduct perimeter and breathing zone air monitoring
- Perform oversight of Site activities conducted by the Emergency and Rapid Response Services (ERRS) contractor Environmental Restoration LLC (ER), Sterling Heights Michigan, including the following:
  - Develop Site support documents
  - Setting up contamination reduction (CRZ) and exclusion zones
  - Cutting and disposal of empty aboveground storage tanks (ASTs), vats, drums, and containers according to the Resource Conservation and Recovery Act (RCRA)
  - Staging of all solid/liquid waste containers to a common area
  - Sampling and hazardous categorization (haz-cat) of solid/liquid wastes
  - Dismantling of the waste water treatment system (WWTS)
  - Segregation and consolidation of similar solid/liquid wastes
  - Solidification of non-hazardous sludge and powders
  - Disposal of hazardous and non-hazardous materials off Site

- Conduct final inspections of work areas for work completion

U.S. EPA conducted the removal action to mitigate an imminent and substantial threat to human health, welfare, and the environment pose by potentially uncontrolled hazardous and non-hazardous substances at the Site. The removal action began on September 12, 2011, and was completed on November 23, 2011.

This letter report discusses the Site description and history, background, removal action activities, the effectiveness of the removal action, and conclusions.

SITE DESCRIPTION

The Site is located at 16500 Northville Road in Northville Township, Wayne County, Michigan (**Figure 1, Attachment A**). The coordinates of the Site are 42°23'41.29" North latitude and 83°28'05.48" West longitude. The Site sits on 4.15 acres and contains one two-story building occupying a total of approximately 57,864 square feet and several concrete parking areas. The Site is in a mixed light-industrial and residential area and is bordered by Mill Street to the north, railroad tracks to the east, the Middle Branch Rouge River and a commercial property to the south, and Northville Road and Hines Parkway to the west (**Figure 2, Attachment A**). Residences are located directly across the railroad tracks 100 feet east of the Site and less than 750 feet south and west of the Site. Meads Mill Middle School is located approximately 750 feet northeast of the Site. The Middle Branch Rouge River runs along the southern boundary of the Site, and several other surface water bodies are located within a 1-mile-radius of the Site, including Waterford Pond and Phoenix Lake.

SITE HISTORY

Durable Coatings Corporation used the Site for electro-coating services; including rust-preventative and corrosion-resistant coatings and metal finishing services. At the time of the removal action, no additional information about Site history or operations was available.

On July 17, 2011, U.S. EPA conducted a site assessment that included a Site reconnaissance, container inventory, and sample collection activities at the Site. WESTON START accompanied U.S. EPA during the site assessment to document current Site conditions and collect samples from unknown drums. A full summary report submitted by WESTON START dated July 8, 2011, discusses the site assessment observations and results.

REMOVAL ACTION ACTIVITIES

On-site removal activities began on September 12, 2011, and were completed on November 23, 2011. The activities completed as part of this removal action included the following:

- Developing and implementing a site-specific work plan, health and safety plan (HASP), air monitoring plan, and emergency contingency plan
- Conducting initial site setup and constructing an exclusion zone and CRZ
- Site perimeter and breathing zone air monitoring
- Actions to remove non-hazardous and hazardous waste from the Site, including; cutting and disposal of empty ASTs, vats, drums, and containers according to the RCRA; staging of all solid/liquid waste containers to a common area; sampling and haz-cat of solid/liquid wastes; dismantling of the WWTS; segregation and consolidation of similar liquid waste; and solidification of non-hazardous sludge and powders.
- Disposal of identified hazardous and non-hazardous wastes off Site
- Implementing Site security measures and demobilizing from the Site

Each activity is discussed in more detail below. **Attachment B** provides a disposal summary of the hazardous and non-hazardous materials shipped off Site during the removal action. **Attachment C** provides photographic documentation of Site conditions and removal action activities.

Developing and Implementing a Site-Specific Work Plan, HASP, Air Monitoring Plan, and Emergency Contingency Plan

The ERRS contractor, ER, developed a work plan dated September 2, 2011. The work plan details the scope of work and objectives of the time-critical removal action. In addition, ER developed a site-specific HASP dated September 9, 2011. The HASP details Site hazards and identifies health and safety protocols for each task to be performed at the Site. The HASP also describes proper personal protective equipment (PPE) to be used on a task-by-task basis and Site emergency procedures.

WESTON START developed the site-specific air monitoring and emergency contingency plans. The air monitoring plan, dated September 12, 2011, identifies Site-related contaminants of concern and air monitoring requirements during work activities. The emergency contingency plan, dated September 12, 2011, details proper procedures and protocols for emergencies (such as vandalism, trespassing, medical emergency, fire, and explosion) related to on-site work activities.

Conducting Initial Site Setup and Constructing the Exclusion Zone and CRZ

On September 12, 2011, U.S. EPA, WESTON START, and ERRS personnel mobilized to the Site to initiate the removal action. U.S. EPA, WESTON START set up a field office in the northwest portion of the Site building, as well as a support zone for supplies. The ERRS contractor procured a local electrician to temporarily restore power to the Site building while removal activities were being conducted.

Before beginning work at the Site, the following areas were established throughout the Site: an official command post, on-site and off-site emergency rally points, several locations for fire extinguishers and emergency eye wash stations, and room numbers for the main rooms where operations would occur (**Figure 3, Attachment A**). The ERRS contractor designated boundaries for the exclusion zone and CRZ. The exclusion zone included Room7 where staging, sampling, and consolidation of wastes would occur. The CRZ was located in Room 2, and designated for decontaminating personnel before they exited the exclusion zone, and contained receptacles for the disposal of PPE used during removal action activities.

Over the duration of the project, PPE levels ranged from Level D through Level B depending on the nature of the activities being performed on Site. Personnel donned Level D PPE while on Site and during activities such as air monitoring along the Site perimeter and outside the exclusion zone. Level C PPE was utilized during activities such as the cutting of empty containers, loading those containers into roll-off dumpsters for disposal, container staging, solidification of waste, and general house-keeping. Personnel donned Level B PPE during waste sampling and consolidation activities.

Site Perimeter and Breathing Zone Air Monitoring

WESTON START conducted Site perimeter and breathing zone air monitoring during times of removal activities within the exclusion zone as defined in the site-specific HASP. A MultiRAE Plus photoionization detector was used to monitor air quality for volatile organic compounds (VOC), carbon monoxide (CO), hydrogen sulfide (H_2S), lower explosive limit (LEL), and percent oxygen (% O_2). An additional four AreaRAE units, also monitoring for VOC, CO, H_2S, LEL, and % O_2, were deployed throughout the Site. Common AreaRAE deployment locations, over the duration of the project, included within the CRZ, the exclusion zone, and along the northeast and southeast Site perimeter. In addition, two DataRAM units were used to monitor the work zones air quality for dust particulates. Each air monitoring instrument was calibrated daily prior to use in the field, and its calibration readings recorded in the Site logbook.

WESTON START conducted air monitoring, outside the exclusion zone, in Level D PPE. Dust particulate readings ranged from approximately 6.7 to 274.1 micrograms per cubic meter ($\mu g/m^3$) during the removal action activities. Daily peak measures were never sustained for a long period of time and all measures were below the particulate action level criteria of 2.5 milligrams per cubic meter (mg/m^3), determined by half of the respiratory permissible exposure limit of 5 mg/m^3 established by the Occupational Safety & Health Administration. No CO, H_2S, LEL, or % O_2 readings exceeded action levels during the removal action. Elevated measures for these gases were at times encountered with the AreaRAE units during the removal action, but were quickly dismissed after cross-checking the measurements with the MultiRae unit. High humidity conditions within the Site building and sensor drift were likely causes for these erroneous measures. Maximum sustained VOC measures of 22.0 parts per million were encountered on October 10, 2011, during the transfer and consolidation of flammable liquids in bulk containers for disposal. In response, a temporary stop-work was issued by the response manager until

ventilation within the area could be increased. Air monitoring data can be found in electronic format within the Site files and in the Site logbook.

Actions to Remove Non-hazardous and Hazardous Waste from the Site

Removal activities occurred at the Site from September 12, 2011 until final disposal of hazardous wastes on November 23, 2011.

Site setup and initial mobilization of U.S.EPA, START, and ERRS occurred on September 12, 2011. From September 12 through September 18, 2011 Site activities included general Site setup and equipment mobilization; staging of all containers to the drum and container staging area in Room 7; and removal of non-hazardous general/construction debris.

Containerized waste at Durable Coatings was situated in various locations throughout the Site building. Due to its size, ambient lighting, and ventilation; Room 7 was chosen as the location for staging all drums and containers to be sampled, consolidated, and prepped for disposal. The staging area was set up with plastic sheeting on the floor and pallets for storing the collected containers. The containers were moved to the staging area by hand or by use of a tracked skid-steer, and arranged in a way to allow easy access to sampling at a later date. Container sizes ranged from less than one-gallon to a 13,500 gallon AST. Waste containers also ranged from full to empty containers, labeled to unlabeled unknowns, and in good to poor condition.

Waste sampling of unknown solid and liquid wastes began on September 22, 2011. Samples were collected by EERS in Level B PPE. Following the collection, each sample was tested through standard haz-cat procedures by a ERRS provided chemist to determine the properties of each waste and compatibility for bulking and disposal. The haz-cat test results were recorded onto a log sheet and can be found in the Site files. The haz-cat inventory includes results from; 20 containers and buckets of five gallon or less; 87 drums; 15 totes; and 14 ASTs. Waste containers were then sorted into groups of similar disposal waste streams, assessed of their condition, and if necessary, placed into over-packing drums to secure their contents.

Containers containing compatible waste streams suitable for bulking together were placed into drums or totes and prepared for disposal. Waste streams included; non-hazardous solids and liquids, acid liquids, base liquids, flammable liquids, oil, and floor sweepings. Following consolidation of solid and liquid wastes, bulk waste samples were collected from each waste stream to determine characteristics for disposal. Samples were submitted by ERRS to RTI Laboratories in Livonia Michigan on September 29, 2011. Non-hazardous waste liquids, powders, and sludges were mixed together and solidified using corn cobs. The resulting non-hazardous material was loaded into plastic lined roll-off dumpster to be disposed of as non-hazardous solids.

At the time of mobilization, the Durable Coatings facility had a system in place to treat waste waters produced when operations occurred at the Site. The WWTS was located within Room 3

and was comprised of various ASTs, vats, and associated piping, some of which contained wastes, and support structures. As part of the removal action, the WWTS was dismantled to provide access to the vats and ASTs for removal and to render the system unusable. In addition, any remaining containers on Site, including drums, totes, and ASTs, were crushed or cut up into pieces, loaded into roll-off dumpsters, and disposed of as non-hazardous RCRA empty containers and construction debris.

Disposal of Identified Hazardous and Non-hazardous Wastes off Site

The disposal of both non-hazardous and hazardous waste from the Site occurred from September 13, 2011 through November 23, 2011. The waste included; crushed empty drums, totes, vats; construction debris; non-hazardous solid/liquids; universal waste; refrigerants; waste oils; and flammable/oxidizing/corrosive liquids. The following waste was shipped off Site for disposal:

- From September 13 through September 16, 2011. Two compressed gas cylinders and 22 pounds (lbs) of R-22 refrigerant was sent to Golden Refrigerant in Livonia, Michigan for recycling

- Approximately 46.16 tons of non-hazardous waste, in the form of RCRA empty containers, construction debris, and non-hazardous solids, was shipped off Site for disposal from September 20, 2011 to November 10, 2011. All non-hazardous waste was disposed of in Woodland Meadows Landfill in Wayne, Michigan

- On November 1, 2011, a total of 5,095 gallons of non-hazardous waste liquids was sent for disposal at Venice Park Landfill in Lennon, Michigan

- On November 23, 2011, a total of 605 gallons of non-hazardous liquids, 40 lbs of universal waste and flammable aerosols, and 1,630 gallons of hazardous liquids (acids, bases, flammable liquids, etc) were sent for disposal at Dynecol Incorporated in Detroit, Michigan.

A comprehensive list of waste shipped off Site for recycling or disposal (including date, description, quantity, manifest number, and disposal facility) can be found in **Table 1, Attachment B.**

Implementing Site Security Measures and Demobilizing from the Site

On November 23, 2011, the removal action was completed and all waste was disposed of from the Site. ERRS personnel completed removal of all support equipment and secured all Site entry points.

EFFECTIVENESS OF REMOVAL ACTION

The time-critical removal action performed at the Site successfully addressed imminent and substantial threats to the public health or welfare or the environment posed by potentially uncontrolled hazardous and non-hazardous substances at the Site. The risk of direct access to uncontrolled wastes was removed from the Site to reduce or mitigate the following potential impacts:

- Potential exposure of nearby human populations, animals, and the food chain to hazardous substances or pollutants or contaminants from the Site
- Potential contamination of drinking water supplies and sensitive ecosystems
- Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release
- Threat of fire or explosion

No further known hazardous waste exists at the Site.

CONCLUSIONS

The risk of direct contact between the general public and potentially uncontrolled hazardous and non-hazardous waste liquids and solids has been removed through collection, identification, and proper disposal of all identified wastes from the Site. A total of 4.15 acres of property have been protected and potentially miles of the Middle Branch Rouge River.

If you have any questions or comments regarding this report, please contact Matthew Beer at (248) 658-5009.

Sincerely,
WESTON SOLUTIONS, INC.

Matthew Beer
Associate Project Scientist

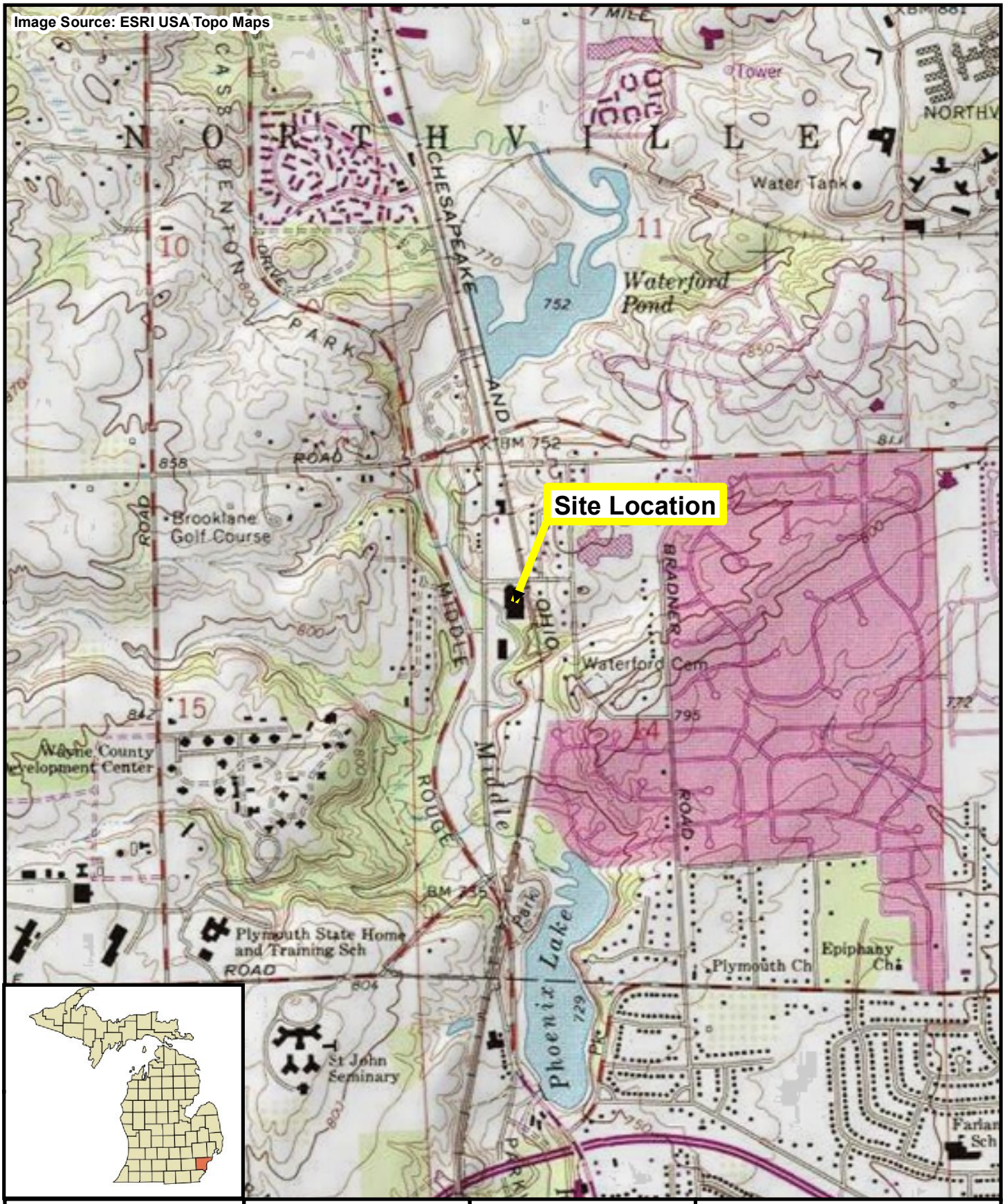
Alexandra Clark
Project Manager

Attachments:
A – Figures
B – Tables

C – Photographic Documentation

cc: WESTON START DCN Files

ATTACHMENT A
FIGURES



March 2012

N

0 0.25 0.5 Miles

Prepared for:
U.S. EPA REGION V

Contract No.: EP-S5-06-04
TDD: S05-0001-1109-002

Prepared By:
WESTON SOLUTIONS, INC
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Figure 1
Site Location Map
Durable Coatings Site
Northville Township, Wayne County, MI

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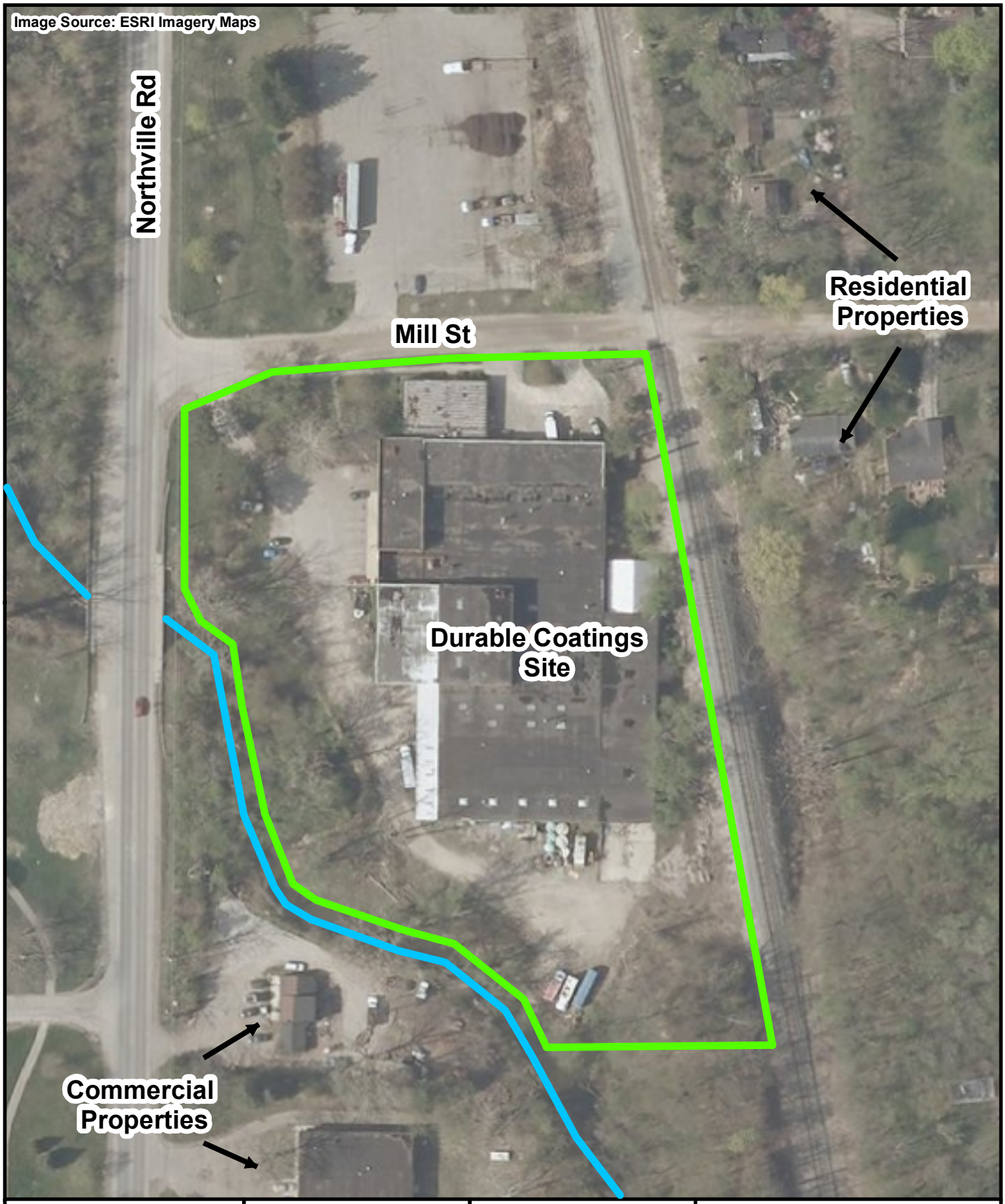

Site Boundary

Middle Branch Rouge River

N

0 75 150 Feet

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Figure 2
Site Features Map
Durable Coatings Site
Northville Township, Wayne County, MI

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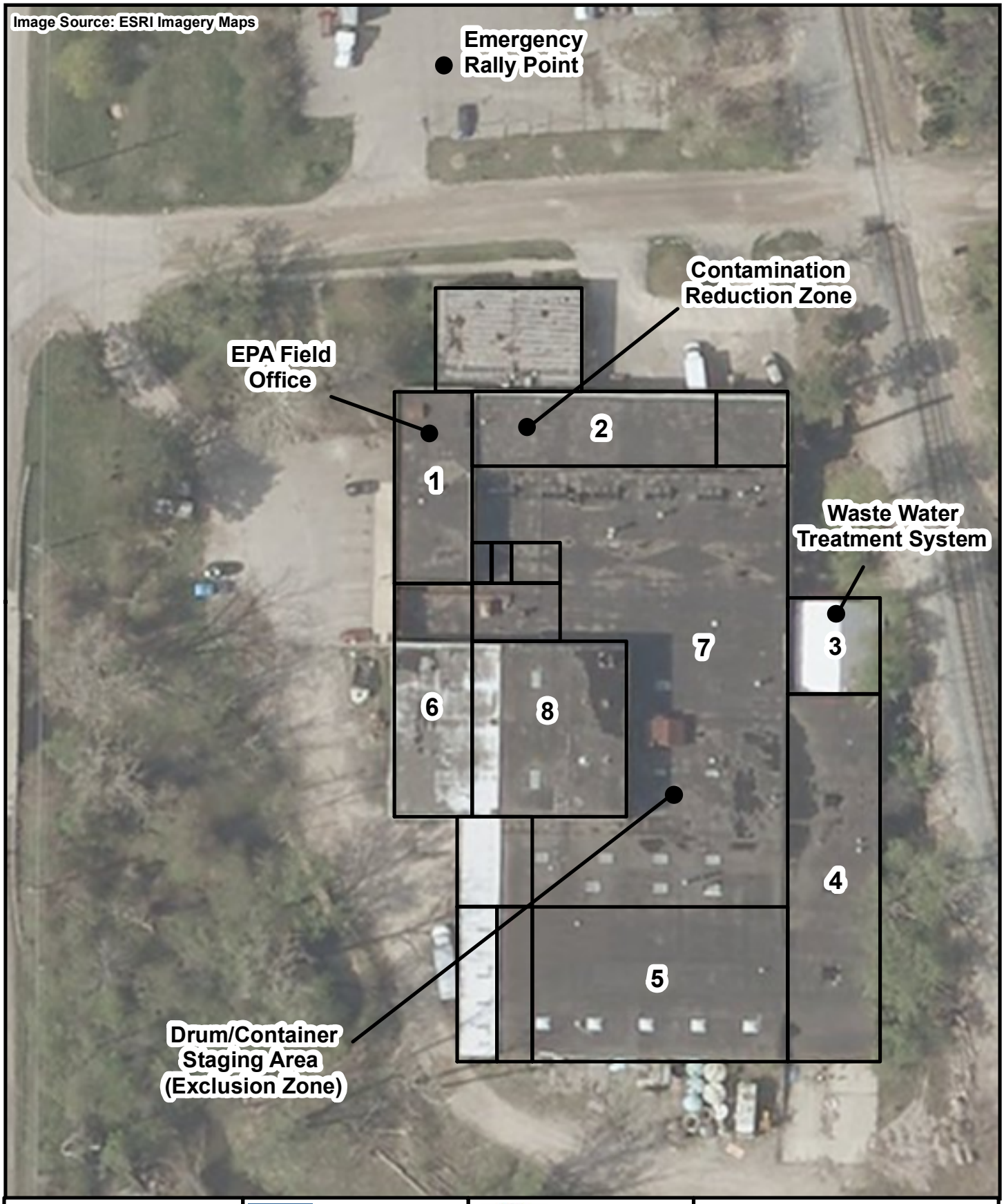

- Room Number

- Room Boundary

N

0 50 100 Feet

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Figure 3
Site Layout Map
Durable Coatings Site
Northville Township, Wayne County, MI

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ATTACHMENT B
TABLES

Attachment B - Table 1
Disposal Summary
Durable Coatings Site
Northville Township, Wayne County, Michigan

Disposal Date	U.S DOT Description	Quantity	Unit	Manifest No.	Disposal Facility
9/13/2011	R-22 Refrigerant	22	P	N/A	Golden Refrigerant, Livonia, Michigan
9/16/2011	R-22 Refrigerant	2	CY	N/A	Golden Refrigerant, Livonia, Michigan
9/20/2011	Crushed RCRA empty containers and construction debris	3.22	T	T08958	Woodland Meadows Landfill, Wayne, Michigan
9/28/2011	Crushed RCRA empty containers and construction debris	4.31	T	T08959	Woodland Meadows Landfill, Wayne, Michigan
10/19-11/10/2011	Non-hazardous Solids	4.57	T	T08960	Woodland Meadows Landfill, Wayne, Michigan
10/26/2011	Crushed RCRA empty containers and construction debris, filter press solids and floor sweepings	11.59	T	T08961	Woodland Meadows Landfill, Wayne Michigan
10/19-11/10/2011	Non-hazardous Solids	9.83	T	T08962	Woodland Meadows Landfill, Wayne, Michigan
10/19-11/10/2011	Non-hazardous Solids	12.64	T	T08963	Woodland Meadows Landfill, Wayne, Michigan
11/1/2011	Non-hazardous Waste Liquid	5,050	G	4038202	Venice Park Landfill, Lennon, Michigan
11/1/2011	Non-hazardous Waste Liquid	900	G	4038201	Venice Park Landfill, Lennon, Michigan
11/23/2011	Non-hazardous Waste Liquid	135	G	008968859JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Non-hazardous Waste Liquid (used oil)	450	G	008968859JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Universal Waste (fluorescent lamps)	20	P	008968859JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Aerosols, Flammable, UN1950	20	P	008968856JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Flammable Liquids, UN1993 (Stoddard Solvent)	100	G	008968856JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Flammable Liquids, UN1993 (Methyl ethyl ketone)	250	G	008968856JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Oxidizing Liquid, UN3139	30	G	008968856JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Nitric Acid, UN2031	30	G	008968858JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Sulfuric Acid, UN1830	150	G	008968858JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Hazardous Waste, Liquid, NA3082	5	G	008968858JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Non-hazardous Waste Liquid	20	G	008968858JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Flammable Liquids, Corrosive, UN2924 (Sodium Hydroxide)	200	G	009653503JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Corrosive Liquid, Acidic, Inorganic, UN3264 (Hydrochloric Acid)	15	G	009653503JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Acetic Acid, Glacial, UN2789	100	G	008968857JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Corrosive Liquid, UN1760, (Phosphoric Acid)	550	G	008968857JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Ferric Chloride Solution, UN2582	100	G	008968857JJK	Dynecol Inc, Detroit, Michigan
11/23/2011	Waste Hydrochloric Acid, UN1789	100	G	008968857JJK	Dynecol Inc, Detroit, Michigan

Attachment B - Table 1
Disposal Summary
Durable Coatings Site
Northville Township, Wayne County, Michigan

Notes:
CY = Cylinder
G = gallons
N/A = Not Available
No. = Number
P = Pounds
RCRA = Resource Conservation and Recovery Act
T = Ton
U.S. DOT = United States Department of Transportation

ATTACHMENT C
PHOTOGRAPHIC DOCUMENTATION

Site: Durable Coatings
Photograph No.: 1 **Date:** 10/25/11
Direction: Southeast **Photographer:** Sean Kane
Subject: Entrance into the Durable Coatings facility

Site: Durable Coatings
Photograph No.: 2 **Date:** 10/25/11
Direction: East **Photographer:** Sean Kane
Subject: Durable Coatings facility

Site: Durable Coatings
Photograph No.: 3 **Date:** 9/21/11
Direction: South **Photographer:** Sean Kane
Subject: Middle Branch of Rouge River, south side of Site

Site: Durable Coatings
Photograph No.: 4 **Date:** 9/16/11
Direction: East **Photographer:** Sean Kane
Subject: Perimeter air monitoring with AreaRAE unit

Site: Durable Coatings
Photograph No.: 5 **Date:** 9/16/11
Direction: East **Photographer:** Sean Kane
Subject: AreaRAE and DataRAM air monitoring in Room 7

Site: Durable Coatings
Photograph No.: 6 **Date:** 9/30/11
Direction: South **Photographer:** Sean Kane
Subject: Site building Room 7, container staging area

Site: Durable Coatings
Photograph No.: 7 **Date:** 9/30/11
Direction: Northeast **Photographer:** Sean Kane
Subject: Site building Room 7, container staging area

Site: Durable Coatings
Photograph No.: 8 **Date:** 9/19/11
Direction: East **Photographer:** Sean Kane
Subject: Waste water treatment system

Site: Durable Coatings
Photograph No.: 9 **Date:** 9/28/11
Direction: East **Photographer:** Sean Kane
Subject: Dismantling of the waste water treatment system

Site: Durable Coatings
Photograph No.: 10 **Date:** 9/30/11
Direction: East **Photographer:** Sean Kane
Subject: Waste water treatment system removal complete

Site: Durable Coatings
Photograph No.: 11 **Date:** 9/27/11
Direction: West **Photographer:** Sean Kane
Subject: Hazardous Categorization (HazCat) of unknown waste

Site: Durable Coatings
Photograph No.: 12 **Date:** 9/22/11
Direction: South **Photographer:** Sean Kane
Subject: Level B PPE sampling

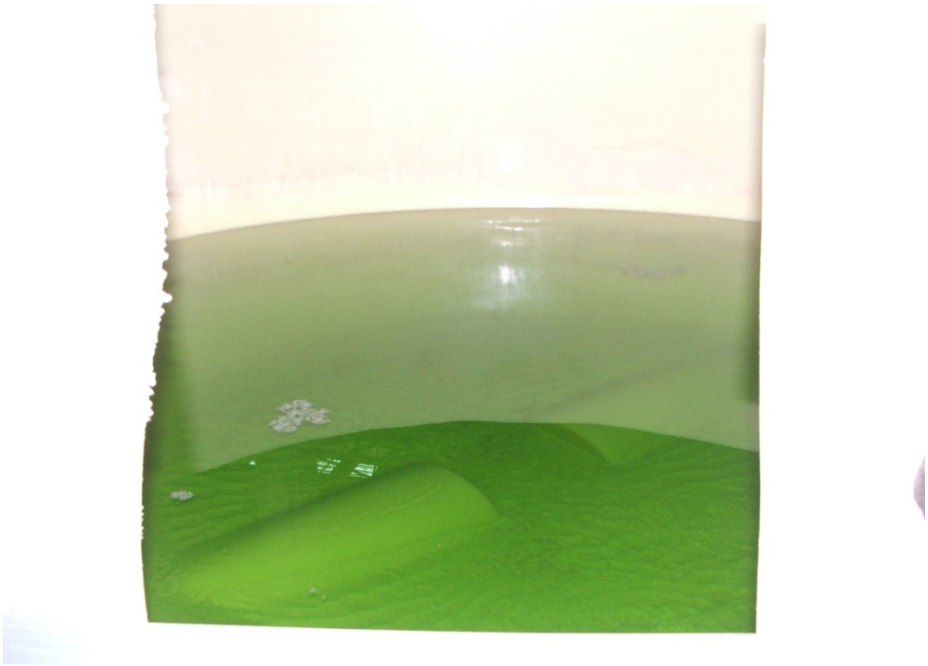
Site: Durable Coatings
Photograph No.: 13 **Date:** 9/27/11
Direction: East **Photographer:** Sean Kane
Subject: Cutting of ASTs, rendering them unusable

Site: Durable Coatings
Photograph No.: 14 **Date:** 10/6/11
Direction: East **Photographer:** Sean Kane
Subject: ERRS staging drums and totes in Room 7

Site: Durable Coatings
Photograph No.: 15 **Date:** 9/30/11
Direction: Southeast **Photographer:** Sean Kane
Subject: Staged drums after being sampled

Site: Durable Coatings
Photograph No.: 16 **Date:** 9/16/11
Direction: Northeast **Photographer:** Sean Kane
Subject: Large AST

Site: Durable Coatings
Photograph No.: 17 **Date:** 9/20/11
Direction: Down **Photographer:** Sean Kane
Subject: Sodium hydroxide crystallization



Site: Durable Coatings
Photograph No.: 18 **Date:** 9/30/11
Direction: Down **Photographer:** Sean Kane
Subject: Cut AST with unknown green liquid inside

Site: Durable Coatings
Photograph No.: 19 **Date:** 9/19/11
Direction: Down **Photographer:** Sean Kane
Subject: Unknown waste

Site: Durable Coatings
Photograph No.: 20 **Date:** 9/21/11
Direction: Down **Photographer:** Sean Kane
Subject: Tote with unknown solids